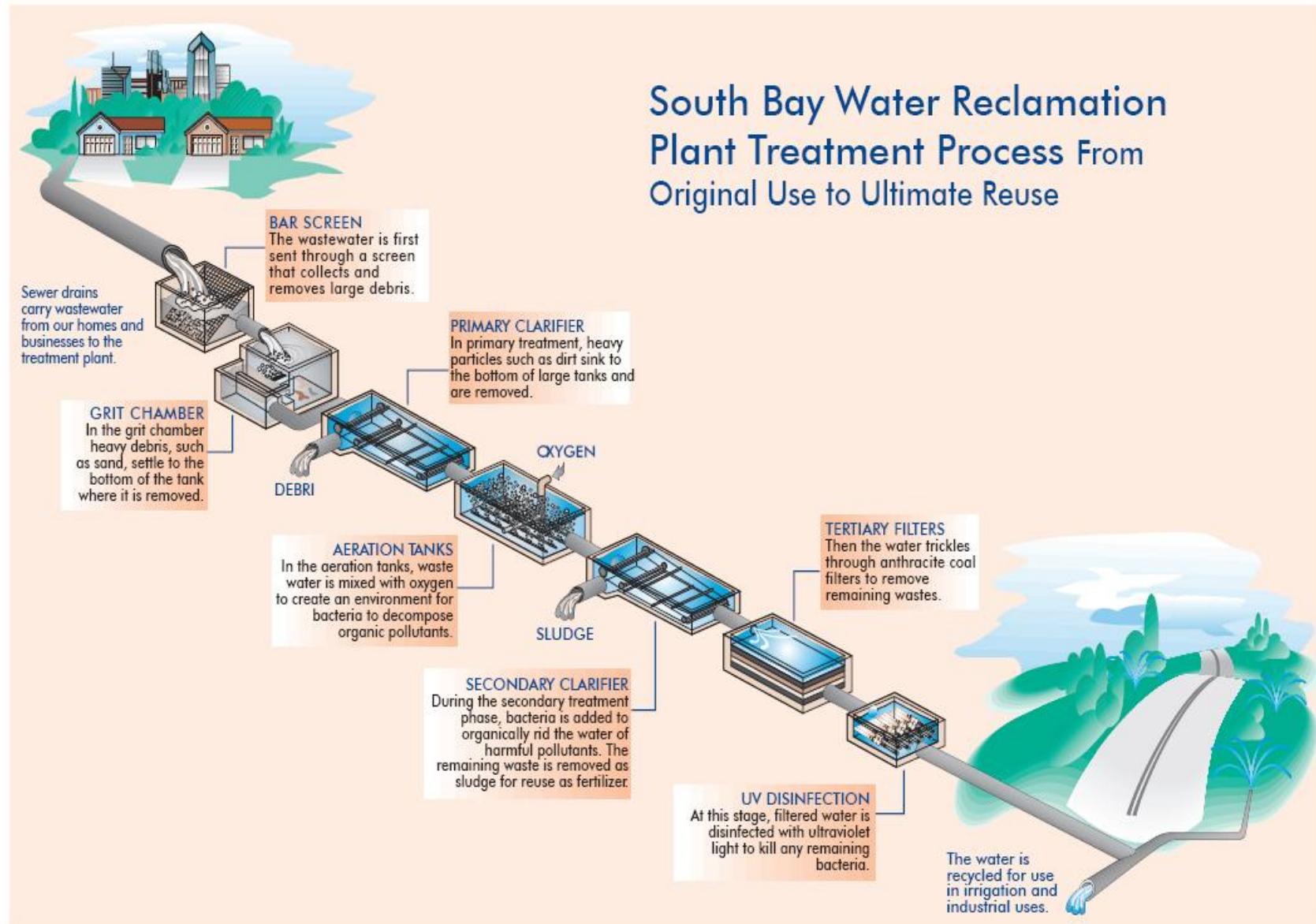


III. Plant Operations Summary

- A. Flows
- B. Rain Days
- C. Chemical Report
- D. Facilities Out of Service Report

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Overview of the Wastewater Treatment Process

Please see the treatment process flow diagram on the preceding page.

Debris, large particulates, and sand are removed in the headworks by mechanical bar-screens and aerated grit removal systems. The process then consists of classical primary sedimentation and secondary treatment by activated sludge. While secondary effluent may be discharged directly to the ocean outfall the usual process directs the treated secondary effluent to reclamation and beneficial reuse by tertiary treatment and disinfection. Even if not beneficially reused, most of the flow goes through tertiary treatment. Tertiary treatment consists of filtration through Anthracite Coal Beds followed by disinfection with high intensity UV (ultraviolet) light. At this stage the "reclaimed" water meets State Title 22 full body contact requirements.

Untreated wastewater (Influent) enters the plant's Headworks from the South Bay region. In the Headworks, the wastewater passes through large, rake-like Bar Screens to remove solid debris and floating material (called "Rags") such as cloth, wood, and plastic material. These "rags" are dewatered and trucked to a landfill.

Following the headworks, the screened wastewater then passes through aerated Grit Chambers where heavier solids such as sand, gravel, coffee grounds and eggshells settle out and are removed. The grit is then dewatered and taken to landfills.

Wastewater then flows into the Primary Sedimentation Basins where the sedimentation process starts. Solids sink to the bottom of the tanks and "scum" (grease and cooking oils) float to the surface. "Raw Sludge" which has settled to the bottom of the basins is returned to the sewer system and sent to the Point Loma Wastewater Treatment Plant. Similarly, the scum is skimmed from the surface and returned to the sewer system.

The wastewater then enters Anoxic Zone Chambers that are oxygen depleted. The wastewater mixes with bacteria ("Bugs") that eat soluble organic material. The wastewater then flows into Aeration Basins where diffused air is pumped into the water. Here, the bugs begin to ingest and digest the organic solids while increasing in number and density.

Wastewater flows from the Aeration Basin into the Secondary Clarifiers where the bacteria and digested solids settle to the bottom as "Secondary Sludge." Some of this Sludge and any remaining scum are removed and returned to the sewer system for treatment at the Point Loma Wastewater Treatment Plant. The remaining sludge is returned to the Anoxic Basins and again mixed with the wastewater.

The water, now treated to a Secondary Treatment level, can either be discharged into the ocean though the South Bay Ocean Outfall or moved on to Tertiary Treatment for reclaimed water applications and beneficial reuse⁷.

In Tertiary Treatment, the treated wastewater (effluent) flows into Anthracite Coal Beds where it is filtered of remaining solids as it passes through the coal medium. The filtered water then passes through chambers where it is disinfected through exposure to high-intensity UV (ultraviolet) light.

⁷ The Recycled Water Users Summary Report as described in Permit No. 2000-203 is submitted separately.

SBWRP Annual Monitoring Report

2009 Flow Report

WASTEWATER MONTHLY AVERAGE FLOWS

(Million Gallons / Day)

Mon	Influent	Outfall	Effluent	South Metro		Dilution Water	Recycled Plant	
				Secondary	Interceptor	Recycled Production	Distributed Recycled	Added Recycled
01	8.61	4.89	1.61	1.61	6.03	2.06	.00	.68
02	8.68	5.36	1.66	1.65	6.06	1.63	.00	.73
03	8.60	4.45	1.74	1.61	5.97	2.49	.00	.78
04	8.28	2.97	1.71	1.55	5.72	3.71	.00	.75
05	8.48	1.32	1.21	1.48	6.50	5.61	.00	.77
06	8.29	1.07	.44	1.53	7.15	5.66	.00	.87
07	8.33	.25	.00	1.59	7.53	6.42	.00	.86
08	8.24	.31	.12	1.51	7.37	6.34	.00	.83
09	8.18	.16	.10	1.48	7.30	6.49	.00	.76
10	8.21	2.09	.61	1.49	6.80	4.58	.00	.75
11	8.03	2.94	1.20	1.48	6.00	3.53	.00	.73
12	8.09	5.79	1.55	1.58	5.73	.67	.00	.82
avg	8.34	2.63	1.00	1.55	6.51	4.10	.00	.78
sum	100.02	31.61	11.96	18.56	78.15	49.20	.00	9.33

WASTEWATER MONTHLY TOTAL FLOWS

(Million Gallons / Month)

Mon	Influent	Outfall	Effluent	South Metro		Dilution Water	Recycled Plant	
				Secondary	Interceptor	Recycled Production	Distributed Recycled	Added Recycled
01	266.78	151.66	49.99	49.98	186.92	63.99	.00	21.23
02	242.95	150.06	46.60	46.19	169.66	45.70	.00	20.53
03	266.47	138.09	54.07	49.79	185.20	77.15	.01	24.09
04	248.52	88.97	51.32	46.64	171.45	111.23	.00	22.56
05	263.01	41.07	37.41	45.81	201.42	174.06	.01	23.72
06	248.79	32.08	13.16	45.79	214.50	169.67	.02	25.99
07	258.23	7.73	.01	49.29	233.43	199.09	.00	26.61
08	255.47	9.76	3.77	46.79	228.33	196.56	.01	25.88
09	245.37	4.81	3.07	44.33	219.02	194.64	.00	22.71
10	254.61	64.84	18.93	46.20	210.95	141.91	.01	23.15
11	240.90	88.17	36.00	44.38	180.07	106.01	.00	21.93
12	250.76	179.41	48.08	49.11	177.48	20.76	.01	25.39
avg	253.49	79.72	30.20	47.03	198.20	125.06	.01	23.65
sum	3041.86	956.65	362.41	564.30	2378.43	1500.77	.07	283.79

A. Flows

Effluent to Ocean FLOW (mgd) 2009

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	6.68	4.60	3.22	6.21	1.75	2.75	0.93	0.06	0.06	0.05	6.41	6.16
2	6.47	6.93	7.17	6.56	1.62	1.29	0.09	0.04	0.08	1.20	3.02	3.90
3	3.05	4.00	6.85	1.97	1.46	1.67	0.06	0.07	0.78	0.06	1.31	6.37
4	6.57	1.99	2.01	1.75	1.88	0.99	0.06	0.03	0.72	2.43	1.57	3.95
5	7.32	1.79	4.84	1.54	1.95	0.87	0.04	0.07	0.08	6.36	1.19	5.94
6	6.97	1.52	3.95	6.59	1.99	0.74	0.06	0.04	0.04	0.35	1.37	6.00
7	7.11	6.99	4.66	4.58	1.95	1.19	0.08	0.22	0.04	0.09	1.33	4.40
8	3.41	7.10	4.66	1.01	1.90	2.15	0.07	0.04	0.07	1.75	4.63	6.82
9	7.12	7.04	7.13	2.72	1.53	0.73	0.09	0.07	0.07	2.28	2.75	6.91
10	7.15	7.19	2.77	6.99	1.40	0.66	0.85	1.03	0.11	3.27	1.92	4.25
11	6.92	1.85	6.49	2.16	2.72	0.67	0.08	0.06	0.04	1.63	2.08	6.30
12	4.13	1.81	2.57	6.50	3.22	3.57	0.07	1.25	0.04	3.99	3.20	6.28
13	3.66	6.94	2.08	3.41	1.28	0.05	0.10	0.09	0.04	0.08	5.52	5.21
14	6.52	6.96	6.93	1.56	2.08	0.63	0.97	0.07	0.06	1.63	5.96	6.90
15	2.25	6.79	6.19	2.77	0.88	0.71	0.66	0.06	0.06	1.71	3.89	6.35
16	2.30	6.60	4.26	1.93	0.59	0.77	1.40	0.04	0.06	0.85	2.44	6.40
17	7.29	5.79	2.02	1.28	1.01	0.49	0.47	0.02	0.05	3.55	2.78	6.45
18	4.68	1.92	6.83	1.38	1.22	0.83	0.07	0.12	0.05	4.28	3.40	6.63
19	1.61	6.61	3.58	3.73	1.00	1.52	0.08	0.06	0.05	4.11	2.45	6.34
20	4.36	6.75	2.30	2.58	0.92	5.89	0.07	0.06	0.06	1.59	2.48	6.38
21	3.71	7.08	6.40	2.05	1.07	1.35	0.08	0.07	0.05	2.33	3.64	2.96
22	1.89	6.86	6.43	1.67	0.86	1.02	0.07	0.07	0.05	0.96	5.99	4.87
23	4.69	7.09	2.78	1.41	0.83	0.36	0.05	0.08	0.05	1.16	1.92	6.57
24	5.55	7.03	5.03	1.65	0.54	0.11	0.08	2.23	1.03	1.33	2.31	6.31
25	6.82	4.65	4.86	1.54	0.57	0.54	0.03	0.07	0.82	2.96	1.98	5.79
26	2.85	5.28	2.75	1.58	1.07	0.26	0.10	0.10	0.04	3.99	2.48	3.44
27	3.51	7.10	3.53	3.49	0.96	0.07	0.09	1.15	0.02	1.85	0.82	6.40
28	7.27	4.19	4.49	3.65	0.87	0.05	0.07	0.66	0.07	2.86	1.22	6.71
29	3.45		2.15	2.80	0.94	0.07	0.76	0.75	0.08	1.40	6.06	5.85
30	4.76		7.02	1.91	0.62	0.08	0.08	0.05	0.04	1.46	2.05	6.30
31	2.28		2.14		0.39		0.02	1.03		3.28		6.27
												Annual Summary
Average	4.91	5.37	4.45	2.97	1.32	1.07	0.25	0.31	0.16	2.09	2.94	5.79
Minimum	1.61	1.52	2.01	1.01	0.39	0.05	0.02	0.02	0.02	0.05	0.82	2.96
Maximum	7.32	7.19	7.17	6.99	3.22	5.89	1.40	2.23	1.03	6.36	6.41	7.32
Total	152.35	150.45	138.09	88.97	41.07	32.08	7.73	9.76	4.81	64.84	88.17	179.41
												958

INFLUENT FLOW (mgd) 2009

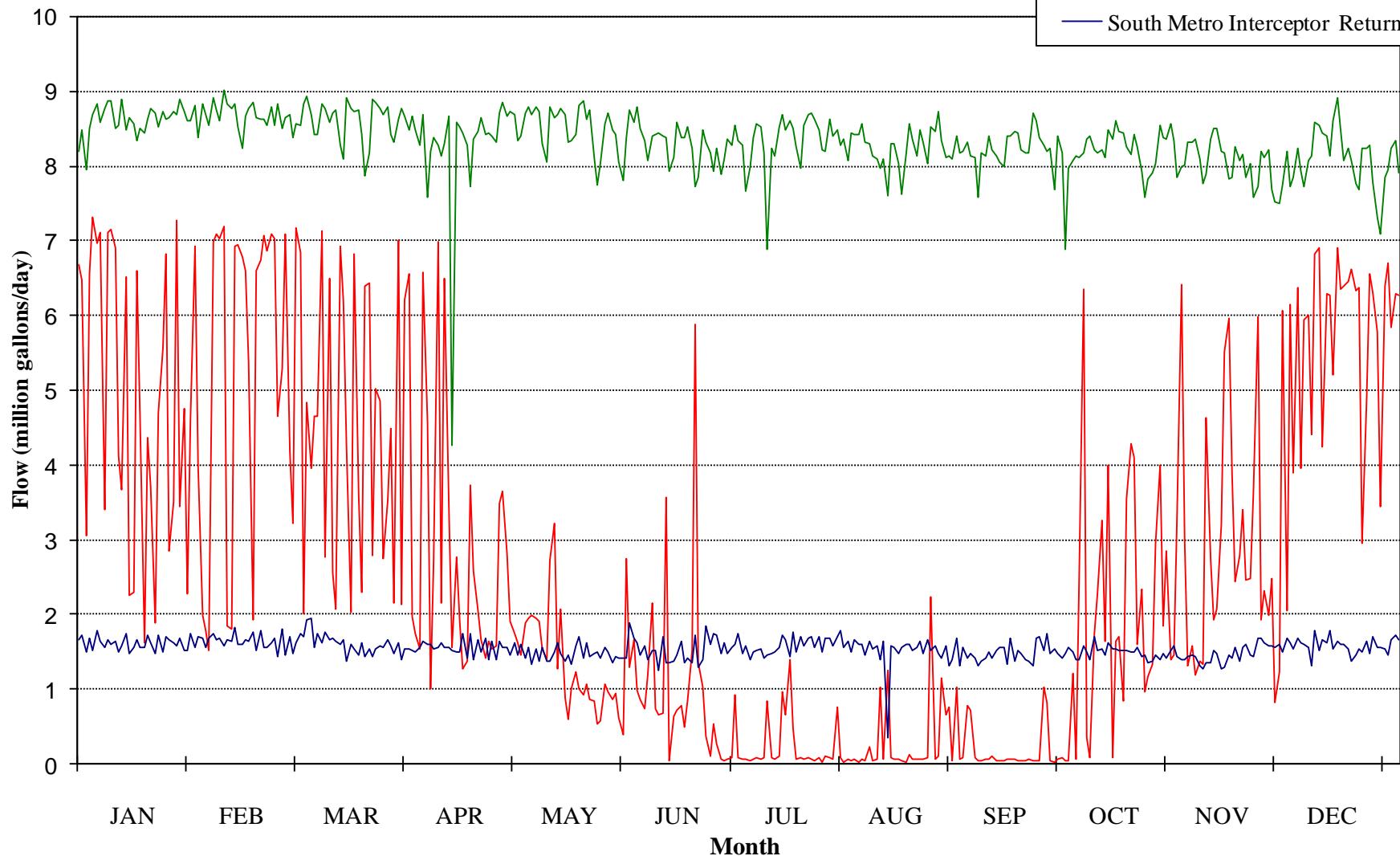
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.20	8.60	8.38	8.67	8.69	8.38	8.55	8.07	8.17	7.97	7.98	7.73
2	8.47	8.80	8.57	8.48	8.34	8.74	8.33	8.44	8.20	8.07	8.00	7.85
3	7.95	8.38	8.55	8.67	8.39	8.59	8.27	8.42	8.32	8.14	8.31	8.23
4	8.50	8.83	8.83	8.47	8.71	8.79	7.67	8.41	8.14	8.12	8.31	7.92
5	8.68	8.69	8.92	8.27	8.79	8.49	7.99	8.56	8.12	8.17	8.35	7.72
6	8.83	8.55	8.69	8.68	8.69	8.33	8.38	8.31	7.57	8.35	8.09	8.08
7	8.58	8.91	8.42	7.59	8.78	8.07	8.56	8.29	8.18	8.39	7.76	8.13
8	8.77	8.75	8.42	8.19	8.73	8.40	8.52	8.14	8.13	8.22	7.89	8.58
9	8.87	8.61	8.83	8.38	8.30	8.42	8.17	8.09	8.39	8.18	8.35	8.55
10	8.86	9.01	8.77	8.28	8.04	8.43	6.89	7.97	8.22	8.22	8.50	8.44
11	8.50	8.82	8.59	8.13	8.78	8.40	8.23	8.09	8.13	8.11	8.49	8.40
12	8.54	8.77	8.71	8.30	8.64	8.37	8.13	7.61	8.05	8.48	8.20	8.13
13	8.88	8.83	8.74	8.67	8.69	7.92	8.51	8.30	7.99	8.35	8.17	8.60
14	8.47	8.51	8.27	4.27	8.77	8.11	8.68	8.30	8.39	8.61	7.83	8.90
15	8.65	8.24	8.09	8.59	8.68	8.58	8.48	8.03	8.39	8.46	7.85	8.48
16	8.57	8.66	8.90	8.51	8.31	8.37	8.61	7.63	8.45	8.43	8.26	8.08
17	8.33	8.76	8.77	8.43	8.34	8.38	8.49	8.17	8.44	8.25	8.07	8.23
18	8.49	8.85	8.73	8.27	8.42	8.51	8.26	8.57	8.21	8.15	8.15	8.06
19	8.43	8.64	8.75	7.72	8.80	8.23	7.96	8.36	8.17	8.41	7.85	7.77
20	8.62	8.62	8.41	8.35	8.86	7.72	8.55	8.13	8.18	8.26	8.03	7.68
21	8.77	8.62	7.86	8.46	8.63	7.84	8.68	8.47	8.70	7.92	7.58	8.24
22	8.71	8.54	8.18	8.65	8.74	8.47	8.70	8.31	8.61	7.59	7.73	8.23
23	8.51	8.78	8.88	8.41	8.12	8.31	8.62	8.02	8.37	7.82	8.19	8.28
24	8.72	8.54	8.84	8.43	7.74	8.18	8.47	8.52	8.28	7.90	8.11	7.79
25	8.62	8.82	8.76	8.39	8.02	7.92	8.22	8.46	8.20	8.03	8.22	7.31
26	8.65	8.49	8.69	8.32	8.57	8.24	8.20	8.73	8.24	8.54	7.68	7.09
27	8.72	8.65	8.79	8.71	8.71	7.88	8.62	8.34	7.68	8.37	7.51	7.84
28	8.68	8.68	8.41	8.85	8.47	8.09	8.39	8.12	8.40	8.35	7.50	7.95
29	8.89	8.38	8.32	8.66	8.41	8.35	8.47	8.13	8.17	8.57	7.75	8.23
30	8.72		8.63	8.72	8.05	8.28	8.28	8.09	6.88	8.33	8.19	8.33
31	8.60		8.77		7.80		8.35	8.39		7.85		7.91
												Annual Summary
Average	8.61	8.68	8.60	8.28	8.48	8.29	8.33	8.24	8.18	8.21	8.03	8.09
Minimum	7.95	8.24	7.86	4.27	7.74	7.72	6.89	7.61	6.88	7.59	7.50	7.09
Maximum	8.89	9.01	8.92	8.85	8.86	8.79	8.70	8.73	8.70	8.61	8.50	8.90
Total	266.78	251.33	266.47	248.52	263.01	248.79	258.23	255.47	245.37	254.61	240.90	250.76
												3,050

Blended Sludge Discharge to South Metro Interceptor (mgd) 2009

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.67	1.75	1.48	1.54	1.62	1.42	1.61	1.64	1.31	1.57	1.39	1.62
2	1.72	1.57	1.62	1.54	1.46	1.88	1.74	1.49	1.56	1.49	1.40	1.53
3	1.49	1.70	1.75	1.52	1.60	1.69	1.48	1.67	1.42	1.39	1.44	1.69
4	1.68	1.68	1.71	1.49	1.41	1.62	1.58	1.61	1.47	1.40	1.46	1.62
5	1.51	1.56	1.92	1.57	1.57	1.45	1.40	1.60	1.42	1.58	1.44	1.61
6	1.79	1.69	1.95	1.65	1.33	1.58	1.49	1.46	1.32	1.50	1.31	1.57
7	1.65	1.75	1.55	1.61	1.53	1.40	1.52	1.65	1.38	1.39	1.28	1.32
8	1.57	1.66	1.74	1.60	1.37	1.52	1.54	1.53	1.42	1.70	1.36	1.79
9	1.67	1.69	1.62	1.53	1.55	1.51	1.42	1.58	1.50	1.51	1.35	1.52
10	1.60	1.59	1.77	1.57	1.38	1.25	1.45	1.39	1.41	1.53	1.52	1.67
11	1.64	1.66	1.66	1.62	1.38	1.71	1.48	1.64	1.52	1.45	1.47	1.63
12	1.49	1.64	1.69	1.56	1.49	1.36	1.50	0.35	1.55	1.63	1.28	1.78
13	1.59	1.83	1.65	1.55	1.62	1.36	1.56	1.58	1.56	1.54	1.30	1.54
14	1.74	1.61	1.61	1.51	1.48	1.37	1.72	1.56	1.33	1.54	1.46	1.65
15	1.48	1.60	1.66	1.49	1.38	1.46	1.66	1.48	1.69	1.52	1.41	1.61
16	1.57	1.66	1.38	1.50	1.46	1.64	1.43	1.55	1.38	1.52	1.56	1.61
17	1.66	1.65	1.61	1.75	1.34	1.35	1.76	1.60	1.51	1.51	1.37	1.53
18	1.57	1.76	1.53	1.41	1.59	1.41	1.50	1.60	1.47	1.49	1.57	1.37
19	1.55	1.52	1.45	1.74	1.71	1.35	1.71	1.51	1.40	1.50	1.61	1.46
20	1.72	1.78	1.63	1.40	1.41	1.72	1.58	1.55	1.38	1.57	1.46	1.53
21	1.63	1.57	1.43	1.66	1.62	1.29	1.69	1.65	1.31	1.43	1.43	1.49
22	1.47	1.55	1.53	1.50	1.44	1.39	1.71	1.47	1.68	1.45	1.69	1.64
23	1.73	1.62	1.44	1.68	1.48	1.85	1.56	1.66	1.71	1.36	1.69	1.48
24	1.50	1.68	1.53	1.40	1.50	1.61	1.70	1.52	1.51	1.38	1.62	1.70
25	1.70	1.44	1.58	1.64	1.41	1.74	1.50	1.58	1.75	1.46	1.58	1.55
26	1.67	1.81	1.56	1.40	1.57	1.73	1.68	1.48	1.48	1.39	1.59	1.55
27	1.62	1.46	1.66	1.64	1.49	1.47	1.68	1.42	1.54	1.47	1.57	1.54
28	1.58	1.71	1.58	1.57	1.36	1.62	1.59	1.59	1.47	1.41	1.60	1.46
29	1.69		1.48	1.55	1.43	1.47	1.70	1.31	1.41	1.51	1.49	1.67
30	1.52		1.62	1.45	1.42	1.57	1.78	1.39	1.47	1.58	1.68	1.72
31	1.51		1.40		1.41		1.57	1.68		1.43		1.66
Average	1.62	1.65	1.61	1.55	1.48	1.53	1.59	1.51	1.48	1.49	1.48	1.58
Minimum	1.47	1.44	1.38	1.40	1.33	1.25	1.40	0.35	1.31	1.36	1.28	1.32
Maximum	1.79	1.83	1.95	1.75	1.71	1.88	1.78	1.68	1.75	1.70	1.69	1.95
Total	49.98	46.19	49.79	46.64	45.81	45.79	49.29	46.79	44.33	46.20	44.38	49.11
												Annual Summary
												564

South Bay Wastewater Reclamation Plant 2009 Daily Flows

— Effluent to Ocean
— Influent
— South Metro Interceptor Return

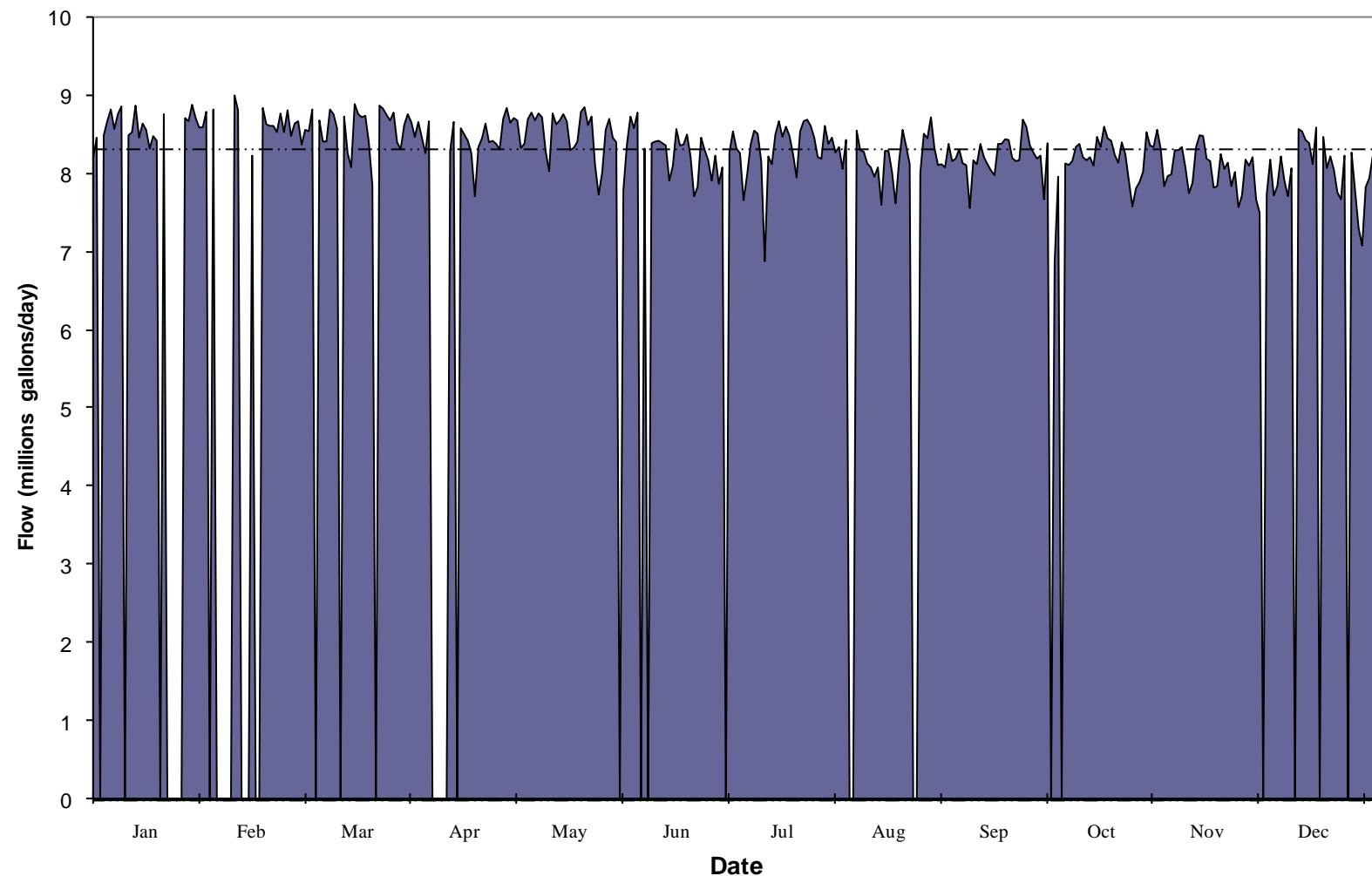


Dry Weather Flows 2009

Influent

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.20	8.60	8.38	8.67	8.69	8.38	8.55	8.07	8.17	7.97	7.98	7.73
2	8.47	8.80	8.57	8.48	8.34	8.74	8.33	8.44	8.20		8.00	7.85
3		8.38	8.55	8.67	8.39		8.27		8.32	8.14	8.31	8.23
4	8.50	8.83	8.83	8.47	8.71	8.79	7.67		8.14	8.12	8.31	7.92
5	8.68			8.27	8.79		7.99	8.56	8.12	8.17	8.35	7.72
6	8.83		8.69	8.68	8.69	8.33	8.38	8.31	7.57	8.35	8.09	
7	8.58		8.42		8.78		8.56	8.29	8.18	8.39	7.76	
8	8.77		8.42		8.73	8.40	8.52	8.14	8.13	8.22	7.89	8.58
9	8.87				8.30	8.42	8.17	8.09	8.39	8.18	8.35	8.55
10		9.01	8.77		8.04	8.43	6.89	7.97	8.22	8.22	8.50	8.44
11	8.50	8.82	8.59		8.78	8.40	8.23	8.09	8.13	8.11	8.49	8.40
12	8.54			8.30	8.64	8.37	8.13	7.61	8.05	8.48	8.20	8.13
13	8.88		8.74	8.67	8.69	7.92	8.51	8.30	7.99		8.17	8.60
14	8.47		8.27		8.77	8.11	8.68	8.30	8.39	8.61	7.83	
15	8.65	8.24	8.09	8.59	8.68		8.48	8.03	8.39	8.46	7.85	8.48
16	8.57		8.90	8.51	8.31		8.61	7.63	8.45	8.43	8.26	8.08
17	8.33		8.77	8.43	8.34	8.38	8.49	8.17	8.44	8.25	8.07	8.23
18	8.49	8.85	8.73	8.27	8.42	8.51	8.26	8.57	8.21	8.15	8.15	8.06
19	8.43	8.64	8.75	7.72	8.80	8.23	7.96	8.36	8.17	8.41	7.85	7.77
20		8.62	8.41	8.35	8.86	7.72	8.55	8.13	8.18	8.26	8.03	7.68
21	8.77	8.62	7.86	8.46	8.63	7.84	8.68		8.70	7.92	7.58	8.24
22		8.54		8.65	8.74	8.47	8.70		8.61	7.59	7.73	
23		8.78	8.88	8.41	8.12	8.31	8.62	8.02	8.37	7.82	8.19	8.28
24		8.54	8.84	8.43	7.74	8.18	8.47	8.52	8.28	7.90	8.11	7.79
25		8.82	8.76	8.39	8.02	7.92	8.22	8.46	8.20	8.03	8.22	7.31
26		8.49	8.69	8.32	8.57	8.24	8.20	8.73	8.24	8.54	7.68	7.09
27	8.72	8.65	8.79	8.71	8.71	7.88	8.62	8.34	7.68	8.37	7.51	7.84
28	8.68	8.68	8.41	8.85	8.47	8.09	8.39	8.12	8.40	8.35		7.95
29	8.89		8.32	8.66	8.41		8.47	8.13		8.57	7.75	8.23
30	8.72		8.63	8.72		8.28	8.28	8.09	6.88	8.33	8.19	
31	8.60		8.77		7.80		8.35	8.39		7.85		7.91
Average	8.61	8.66	8.59	8.49	8.50	8.26	8.33	8.22	8.18	8.21	8.05	8.04
Minimum	8.20	8.24	7.86	7.72	7.74	7.72	6.89	7.61	6.88	7.59	7.51	7.09
Maximum	8.89	9.01	8.90	8.85	8.86	8.79	8.70	8.73	8.70	8.61	8.50	8.60
Total	198.1	155.9	231.8	203.7	255.0	198.3	258.2	221.9	237.2	238.2	233.4	209.1
												Annual Summary

**South Bay Wastewater Reclamation Plant
2009 Daily Influent Dry Flows**

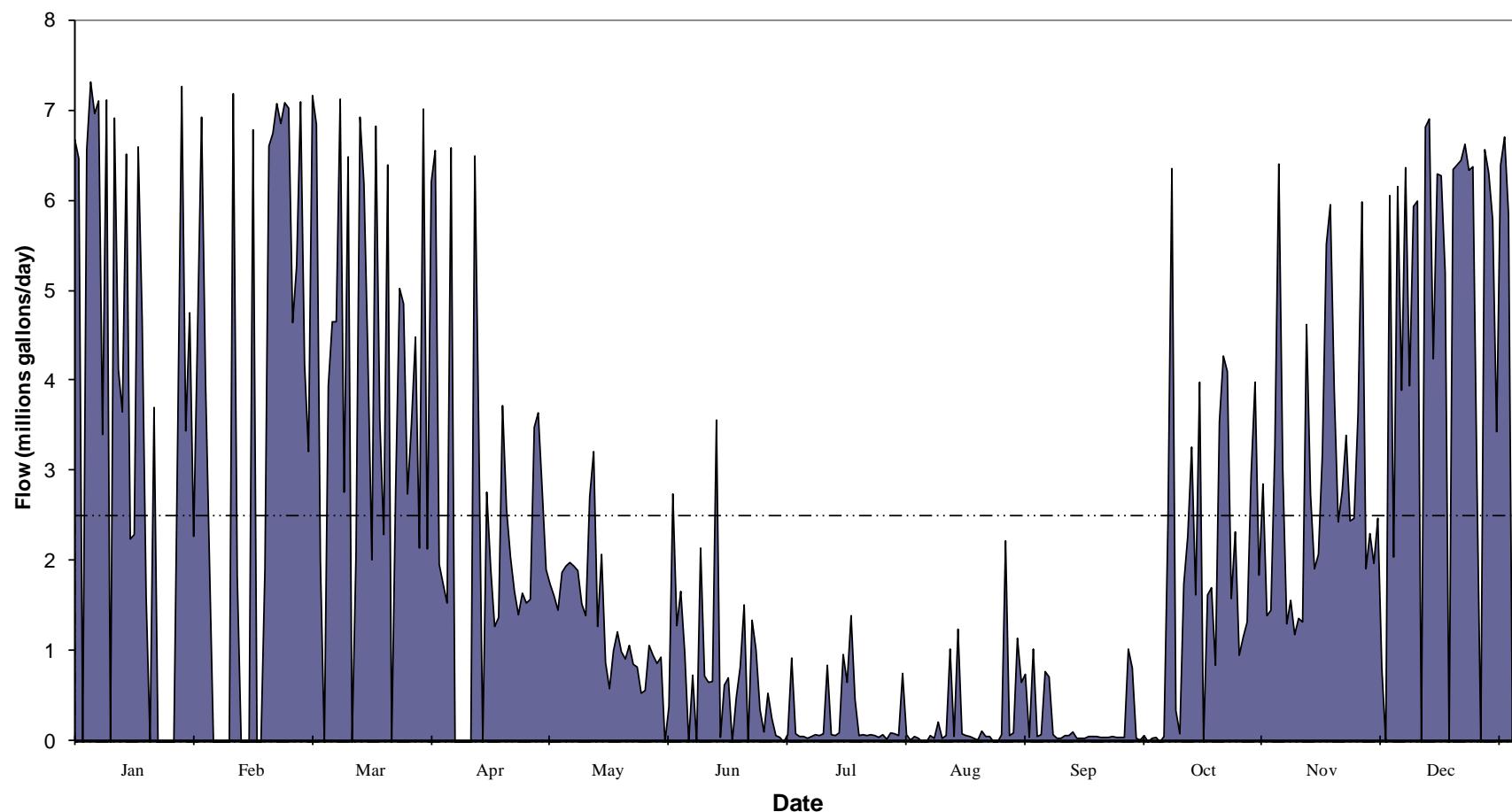


Dry Weather Flows 2009

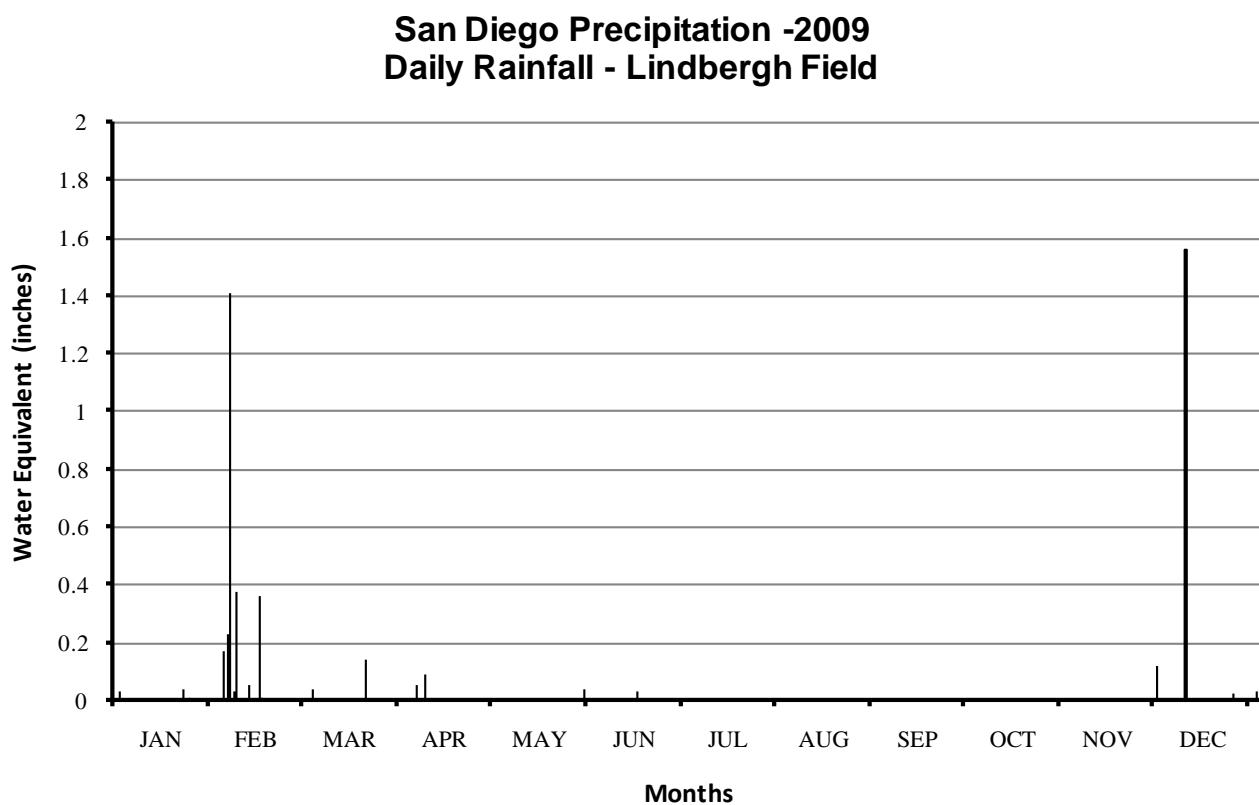
Effluent to Ocean

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	6.68	4.60	3.22	6.21	1.75	2.75	0.93	0.06	0.06	0.05	6.41	6.16
2	6.47	6.93	7.17	6.56	1.62	1.29	0.09	0.04	0.08		3.02	3.90
3		4.00	6.85	1.97	1.46		0.06		0.78	0.06	1.31	6.37
4	6.57	1.99	2.01	1.75	1.88	0.99	0.06		0.72	2.43	1.57	3.95
5	7.32			1.54	1.95		0.04	0.07	0.08	6.36	1.19	5.94
6	6.97		3.95	6.59	1.99	0.74	0.06	0.04	0.04	0.35	1.37	
7	7.11		4.66		1.95		0.08	0.22	0.04	0.09	1.33	
8	3.41		4.66		1.90	2.15	0.07	0.04	0.07	1.75	4.63	6.82
9	7.12				1.53	0.73	0.09	0.07	0.07	2.28	2.75	6.91
10		7.19	2.77		1.40	0.66	0.85	1.03	0.11	3.27	1.92	4.25
11	6.92	1.85	6.49		2.72	0.67	0.08	0.06	0.04	1.63	2.08	6.30
12	4.13			6.50	3.22	3.57	0.07	1.25	0.04	3.99	3.20	6.28
13	3.66		2.08	3.41	1.28	0.05	0.10	0.09	0.04		5.52	5.21
14	6.52		6.93		2.08	0.63	0.97	0.07	0.06	1.63	5.96	
15	2.25	6.79	6.19	2.77	0.88		0.66	0.06	0.06	1.71	3.89	6.35
16	2.30		4.26	1.93	0.59		1.40	0.04	0.06	0.85	2.44	6.40
17	6.60		2.02	1.28	1.01	0.49	0.47	0.02	0.05	3.55	2.78	6.45
18	4.68	1.92	6.83	1.38	1.22	0.83	0.07	0.12	0.05	4.28	3.40	6.63
19	1.61	6.61	3.58	3.73	1.00	1.52	0.08	0.06	0.05	4.11	2.45	6.34
20		6.75	2.30	2.58	0.92		0.07	0.06	0.06	1.59	2.48	6.38
21	3.71	7.08	6.40	2.05	1.07	1.35	0.08		0.05	2.33	3.64	2.96
22		6.86		1.67	0.86	1.02	0.07		0.05	0.96	5.99	
23		7.09	2.78	1.41	0.83	0.36	0.05	0.08	0.05	1.16	1.92	6.57
24		7.03	5.03	1.65	0.54	0.11	0.08	2.23	1.03	1.33	2.31	6.31
25		4.65	4.86	1.54	0.57	0.54	0.03	0.07	0.82	2.96	1.98	5.79
26		5.28	2.75	1.58	1.07	0.26	0.10	0.10	0.04	3.99	2.48	3.44
27	3.51	7.10	3.53	3.49	0.96	0.07	0.09	1.15	0.02	1.85	0.82	6.40
28	7.27	4.19	4.49	3.65	0.87	0.05	0.07	0.66	0.07	2.86		6.71
29	3.45		2.15	2.80	0.94		0.76	0.75		1.40	6.06	5.85
30	4.76			7.02	1.91		0.08	0.08	0.05	0.04	1.46	2.05
31	2.28		2.14		0.39		0.02	1.03		3.28		6.27
Average	5.01	5.44	4.34	2.91	1.35	0.91	0.25	0.35	0.16	2.19	3.00	5.81
Minimum	1.61	1.85	2.01	1.28	0.39	0.05	0.02	0.02	0.02	0.05	0.82	2.96
Maximum	7.32	7.19	7.17	6.59	3.22	3.57	1.40	2.23	1.03	6.36	6.41	7.32
Total	115.3	97.9	117.1	70.0	40.5	20.9	7.7	9.5	4.7	63.6	87.0	150.9
												Annual Summary

**South Bay Wastewater Reclamation Plant
2009 Daily Effluent to Ocean Dry Flows**



B. Rain Days



Annual Precipitation
2009 Rainfall

First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
Date	Rain	Date	Rain	Date	Rain	Date	Rain
3-Jan-09	0.03	7-Apr-09	0.05	3-Aug-09		T	2-Oct-09
10-Jan-09	T	8-Apr-09	T	4-Aug-09		T	13-Oct-09
20-Jan-09	T	9-Apr-09	T	21-Aug-09		T	28-Nov-09
22-Jan-09	T	10-Apr-09	0.09	22-Aug-09		T	6-Dec-09
23-Jan-09	0.04	11-Apr-09	T	29-Sep-09		T	7-Dec-09
24-Jan-09	T	14-Apr-09	T				14-Dec-09
25-Jan-09	0.01	30-May-09	0.04				22-Dec-09
26-Jan-09	T	3-Jun-09	T				30-Dec-09
5-Feb-09	0.17	5-Jun-09	T				
6-Feb-09	0.23	7-Jun-09	T				
7-Feb-09	1.41	15-Jun-09	T				
8-Feb-09	0.03	16-Jun-09	0.03				
9-Feb-09	0.37	20-Jun-09	T				
12-Feb-09	T	29-Jun-09	T				
13-Feb-09	0.05						
14-Feb-09	T						
16-Feb-09	0.36						
17-Feb-09	0.01						
5-Mar-09	0.04						
9-Mar-09	T						
12-Mar-09	T						
22-Mar-09	0.14						
TOTALS							ANNUAL TOTAL
2.89		0.21		0	1.73	4.83	
					Maximum	1.56	

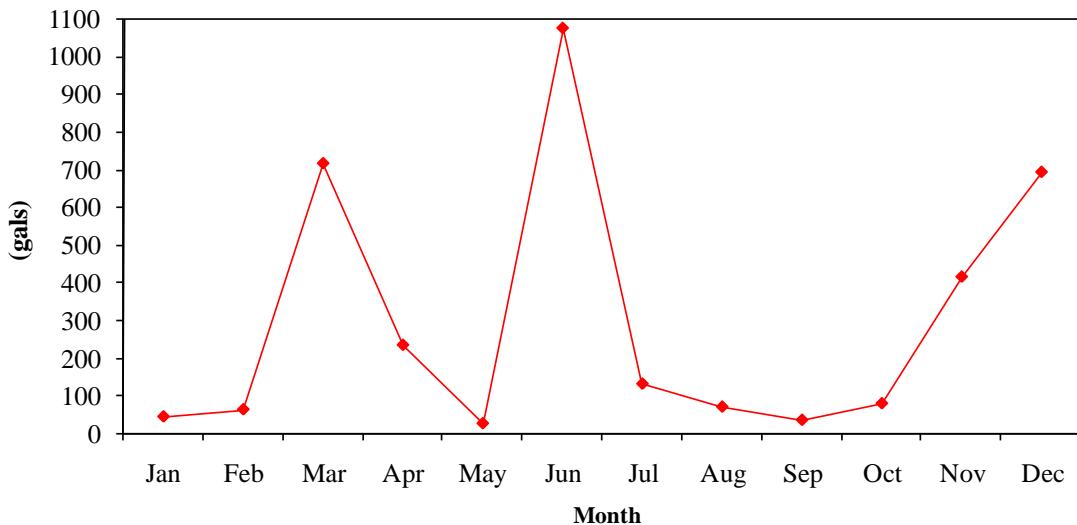
C. Chemical Report

South Bay Water Reclamation Plant - Annual Chemical Usage Report

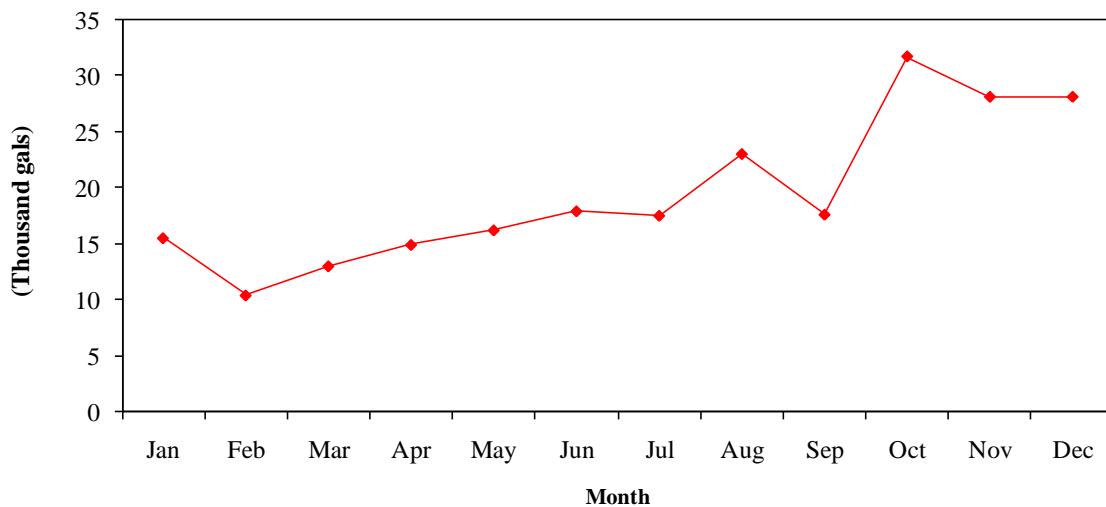
2009

DATE	Polymer Catalytic Gallons	Hypochlorite Gallons	Alum Chloride Gallons	Sodium Hydroxide Gallons	Ferric Chloride Gallons
Jan-09	7	15,528	42	1,710	4
Feb-09	5	10,423	61	958	3
Mar-09	23	13,027	714	989	3
Apr-09	9	14,948	232	1,345	3
May-09	0	16,230	24	1,657	5
Jun-09	22	17,941	1,073	1,242	6
Jul-09	4	17,485	129	1,450	0
Aug-09	5	22,980	68	2,124	0
Sep-09	2	17,638	33	4,751	0
Oct-09	0	31,740	77	2,794	0
Nov-09	0	28,050	413	2,644	0
Dec-09	0	28,143	691	2,593	0
AVG	10	19,511	296	2,021	0
SUM	77	234,132	3557	24,257	0

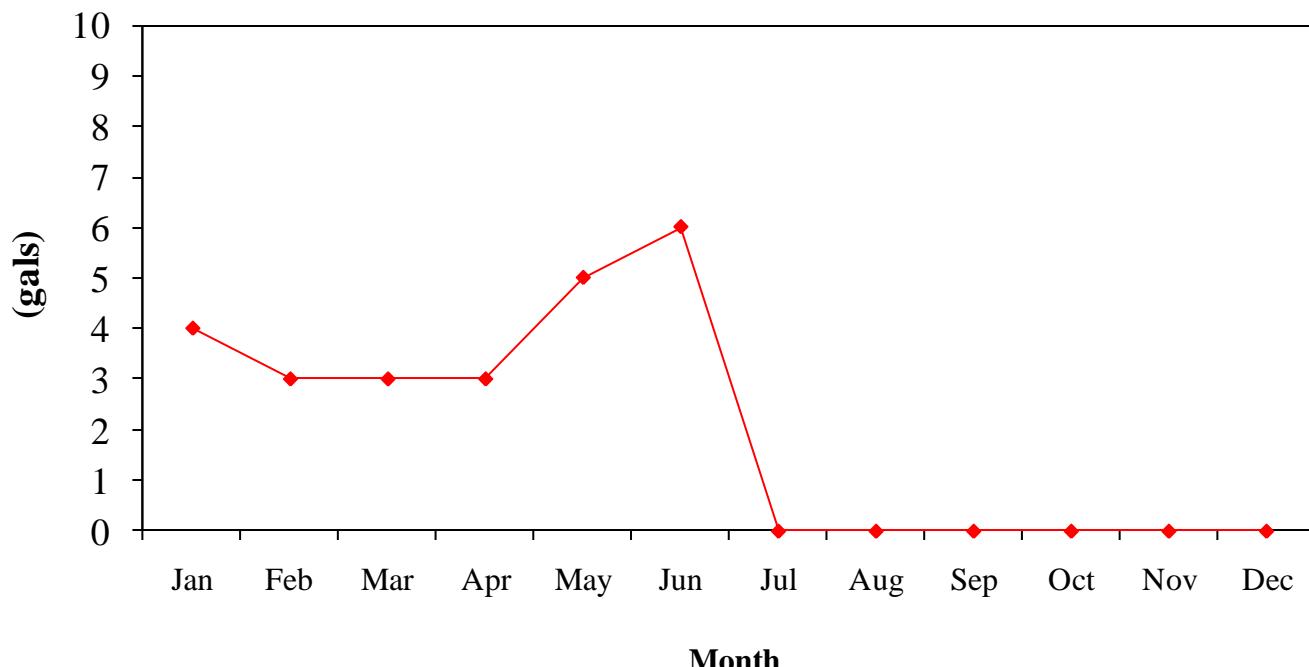
**South Bay Water Reclamation Plant
Alum
2009 Monthly Chemical Usage**



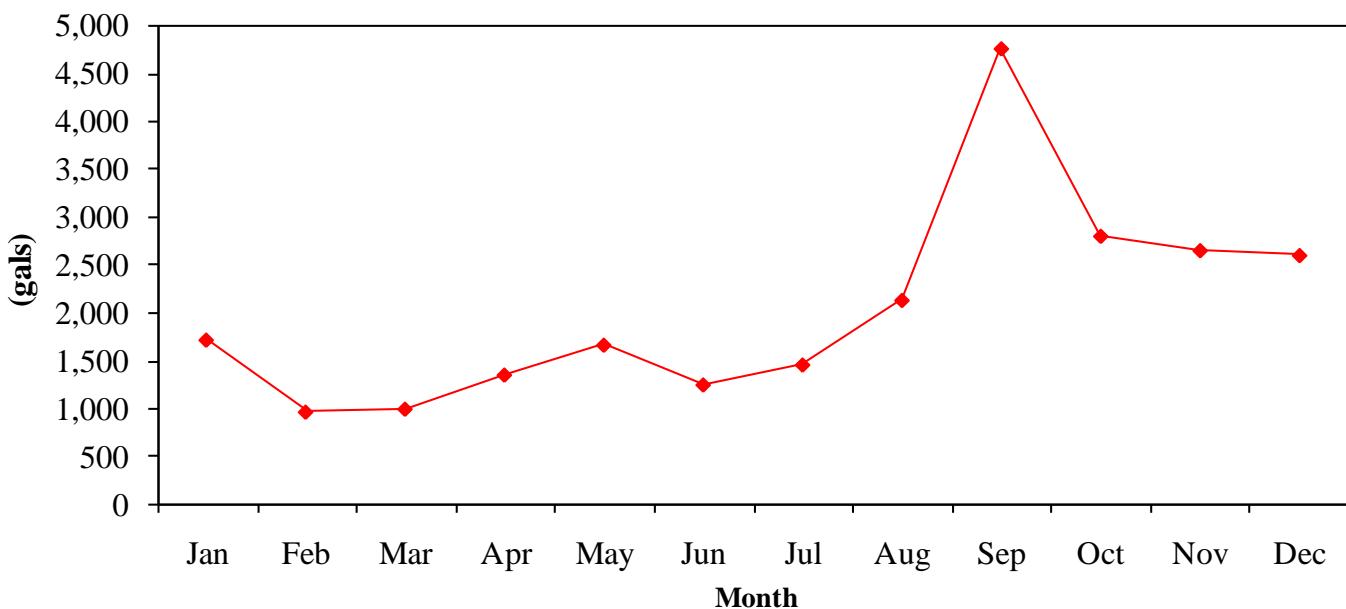
**South Bay Water Reclamation Plant
Sodium Hypochlorite
2009 Monthly Chemical Usage**



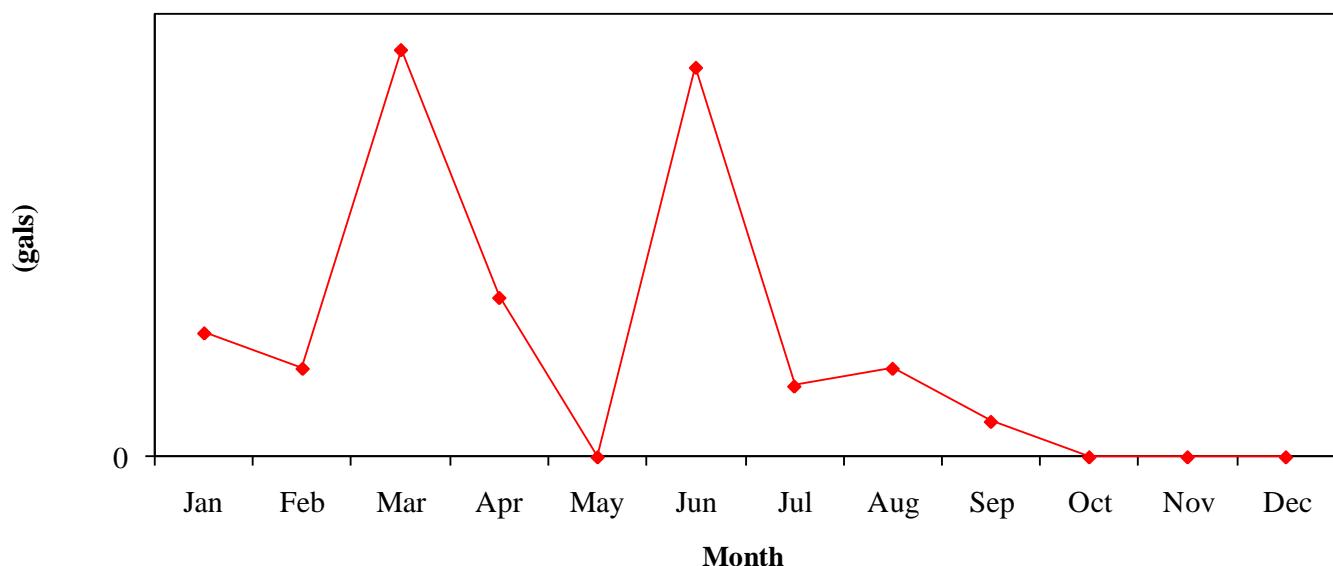
**South Bay Water Reclamation Plant
Ferric Chloride
2009 Monthly Chemical Usage**



**South Bay Water Reclamation Plant
Caustic
2009 Monthly Chemical Usage**



**South Bay Water Reclamation Plant
Polymer Catalytic
2009 Monthly Chemical Usage**



D. Facilities Out of Service Report

2009 SBWRP FACILITIES OUT OF SERVICE REPORT

FACILITIES OOS BY DATE

Bar Screens

	FROM	TO	REASON
Bar Screen 1	2/25/09	3/3/09	Bar screen channel drain gate inoperable due to rags wrap around valve stem. Drain channel, conduct CSE clean and removed rags and debris off the valve stem.
Bar Screen 1	3/10/09	3/19/09	Repair bent drain gate valve
Bar Screen 1	4/7/09	4/7/09	Barscreen not raking in Auto or manual. Barscreen faulting on "Not raking", "Not parked", Timer not counting down for rake time. Barscreen rakes only in local.
Bar Screen 1	4/7/09	4/8/09	Re-bore sprocket wheel to Bar screen #1
Bar Screen 1	5/21/09	6/16/09	Bar screen out of alignment and would not engage to rake. Conduct CSE remove and cleanout rags and debris that are wedge between bars. Align and straighten bar screen.
Bar Screen 2	2/23/09	2/23/09	Bar Screen #2 (05-ME-120) fails to park, running continuously stops grit strategy from running.
Bar Screen 2	5/5/09	5/5/09	No. 2 Influent channel needs cleaning, rags wrap around drain valve, blocking sluice gate and enabling channel to drain. Clean channel and free of rags and debris.
Bar Screen 2	8/17/09	8/17/09	Please inspect and repair. Bar Screen #2 rack jammed from excessive rags
Bar Screen 2	8/17/09	8/18/09	Troubleshoot screen #2 power loss and repair as necessary

Primary Sedimentation

	FROM	TO	REASON
Pri Sed Tank 1	6/3/09	6/3/09	Please inspect and repair. Primary Sed tank #1 inlet valve clogged.
Pri Sed Tank 1	7/16/09	11/20/09	Please inspect and repair/replace hose bib on inlet to Secondary Sed Tank # 1
Pri Sed Tank 2	1/8/09	1/9/09	Enter sed tank #2 and remove the diffusers
Pri Sed Tank 2	8/27/09	8/27/09	Troubleshoot and repair Gen fail alarm on SB10MOV7042
Pri Sed Tank 2	2/8/10	3/16/10	Repair drive gear foundation in preparation of installing rebuilt gearbox.
Pri Sed Tank 3	5/28/09	9/2/09	Pls order 4-limit switches for the primary clarifiers flight & chain drive. These need to be in hand in

			case the contractor need to replace one during the upgrading of the corrosive material on the top of the primary area. Thanks
Pri Sed Tank 3	11/9/09	11/10/09	INSPECT & FREE-UP SCUM TROUGH, REPAIR AS NECESSARY.
Pri Sed Tank 3	11/10/09	1/12/10	Install cover plates for access holes cored in Sed Tank to R/R Head Shaft. Contact person is Anthony Wujick @ (858) 614-4517.
Pri Sed Tank 3	12/8/09	1/8/10	Fabricate cover plates for access holes cored in Sed Tank to R/R Head Shaft. Contact person is Anthony Wujick @ (858) 614-4517.
Pri Sed Tank 3	12/11/09	2/4/10	Prim-sed-tank #3, Scum sprayer valve(10-sv-530) is not operating. Please replace this solenoid valve
Pri Sed Tank 4	1/27/09	1/28/09	Remove tank covers remove diffusers and reinstall the covers
Pri Sed Tank 4	12/9/09	12/9/09	Please troubleshoot and repair PSL DRAWOFF VALVE TANK 4 that continues to fail on GEN FAIL.
Pri Sed Tank 4	12/11/09	12/24/09	#4 Prim-Sed-Tank Scum sprayer valve (10-sv-540) is not operating. Please overhaul or replace this solenoid valve.
Pri Sed Tank 4	2/17/10	4/5/10	R/R Sed Tank Flight Chain.
Pri Sed Tank 5	12/11/09	12/23/09	#5 Prim-Sed-Tank Scum sprayer valves (10-sv-550) is not operating. Please replace this solenoid valve

Aeration Basins

	FROM	TO	REASON
Aer Basin 2	7/6/09	7/6/09	Please inspect and repair Basin 2 (15-FCV-320) in Gen Fail, unable to reset.
Aer Basin 2	7/8/09	8/11/09	Continue with troubleshooting and clear Gen Fail Alarm *****15-FCV320*****
Aer Basin 2	7/9/09	7/10/09	ZONE 4 and 2 dissolved oxygen has a significant disparity between FIELD and DCS reading causing increase in aeration blower demand. Need I&C technician to clean, troubleshoot and calibrate D.O. probe.
Aer Basin 3	12/3/09	12/11/09	Air line from aeration blowers leaking at flange over channel to A Basin 3.
Aer Basin 5	5/21/09	8/3/09	Air header drain leaking in trench by zone 2 DO meter, please repair.

Aer Basin 5	7/9/09	7/10/09	ZONE 2 dissolved oxygen has a significant disparity between FIELD and DCS reading. Request I&C technician to clean, troubleshoot, and calibrate D.O. probe.
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Secondary Clarifiers

	FROM	TO	REASON
Sec. Clar. 5	6/30/09	6/30/09	Sludge collector 5 has a sheer pin failure. attempted to reset collector and failed. Repair as necessary

Tertiary Filters

	FROM	TO	REASON
Ter. Filter 2	5/14/09	5/13/09	*****FLE Valve 25FCV223*****Assist V.A.C. with retrofitting of Filter Effluent Valve Actuator with VFD control actuator for more precise control.
Ter. Filter 2	5/14/09	5/14/09	duplicate
Ter. Filter 2	12/11/09	1/8/10	Please inspect and repair. Filter #2 FLE Valve continually failing in Gen Fail.
Ter. Filter 3	4/14/09	5/6/09	FLE valve not controlling, see Doyle or Rich for specifics.
Ter. Filter 3	5/14/09	5/14/09	*****FLE Valve 25FCV233*****Assist V.A.C. with retrofitting of Filter Effluent Valve Actuator with VFD control actuator for more precise control.
Ter. Filter 4	5/14/09	5/18/09	*****FLE Valve 25FCV243*****Assist V.A.C. with retrofitting of Filter Effluent Valve Actuator with VFD control actuator for more precise control.
Ter. Filter 5	5/14/09	5/26/09	*****FLE Valve 25FCV253*****Assist V.A.C. with retrofitting of Filter Effluent Valve Actuator with VFD control actuator for more precise control.
Ter. Filter 5	7/9/09	8/4/09	Please inspect and repair, Flow Control valve keeps going into Gen Fail (25-FCV-253)
Ter. Filter 6	2/3/09	2/3/09	Calibration failure, repair as necessary.
Ter. Filter 6	4/16/09	4/16/09	No power to FLE valve at filter 6.
Ter. Filter 6	5/14/09	5/27/09	*****FLE Valve 25FCV263*****Assist V.A.C. with retrofitting of Filter Effluent Valve Actuator with VFD control actuator for more precise control.
Ter. Filter 6	9/1/09	9/2/09	Waste valve 25 MOV265 going in Gen Fail.
Ter. Filter 7	5/14/09	5/20/09	*****FLE Valve 25FCV273*****Assist V.A.C. with retrofitting of Filter Effluent Valve Actuator with VFD control actuator for more precise control.
Ter. Filter 7	6/23/09	6/30/09	Filter backwash valve MOV275 gen fail alarm, please repair.

FACILITIES OOS BY PROCESS

Bar Screens

	DATES OOS
Bar Screen 1	2/25/09 - 3/3/09; 3/10/09 - 3/19/09; 4/7/09 - 4/7/09; 4/7/09 - 4/8/09; 5/21/09 - 6/16/09
Bar Screen 2	2/23/09 - 2/23/09; 5/5/09 - 5/5/09; 8/17/09 - 8/17/09; 8/17/09 - 8/18/09

Primary Sedimentation

	DATES OOS
Pri Sed Tank 1	6/3/09 - 6/3/09; 7/16/09 - 11/20/09
Pri Sed Tank 2	1/8/09 - 1/9/09; 8/27/09 - 8/27/09; 2/8/10 - 3/16/10
Pri Sed Tank 3	5/28/09 - 9/2/09; 11/9/09 - 11/10/09; 11/10/09 - 1/12/10; 12/8/09 - 1/8/10; 2/11/0 - 2/4/10
Pri Sed Tank 4	1/27/09 - 1/28/09; 12/9/09 - 12/9/09; 12/11/09 - 12/24/09; 2/17/10 - 4/5/10
Pri Sed Tank 5	12/11/09 - 12/23/09

Aeration Basins

	DATES OOS
Aer Basin 2	7/6/09 - 7/6/09; 7/8/09 - 8/11/09; 7/9/09 - 7/10/09
Aer Basin 3	12/3/09 - 12/11/09
Aer Basin 5	5/21/09 - 8/3/09; 7/9/09 - 7/10/09

Secondary Clarifiers

	DATES OOS
Sec. Clar. 5	6/30/09 - 6/30/09

Tertiary Filters

	DATES OOS
Ter. Filter 2	5/14/09 - 5/13/09; 5/14/09 - 5/14/09; 12/11/09 - 1/8/10
Ter. Filter 3	4/14/09 - 5/6/09; 5/14/09 - 5/14/09
Ter. Filter 4	5/14/09 - 5/18/09
Ter. Filter 5	5/14/09 - 5/26/09; 7/9/09 - 8/4/09
Ter. Filter 6	2/3/09 - 2/3/09; 4/16/09 - 4/16/09; 5/14/09 - 5/27/09; 9/1/09 - 9/2/09
Ter. Filter 6	5/14/09 - 5/20/09; 6/23/09 - 6/30/09

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